

# isc Silicon NPN Power Transistor

## 2SC1913

### DESCRIPTION

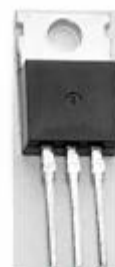
- Collector-Emitter Breakdown Voltage-  
:V<sub>(BR)CEO</sub>= 150(V)(Min.)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

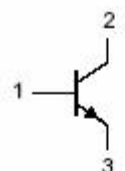
- Designed for audio frequency high power driver

### ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	150	V
V <sub>CEO</sub>	Collector-Emitter Voltage	150	V
V <sub>EB0</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current-Continuous	1.0	A
P <sub>C</sub>	Total Power Dissipation @ T <sub>C</sub> =25°C	15	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



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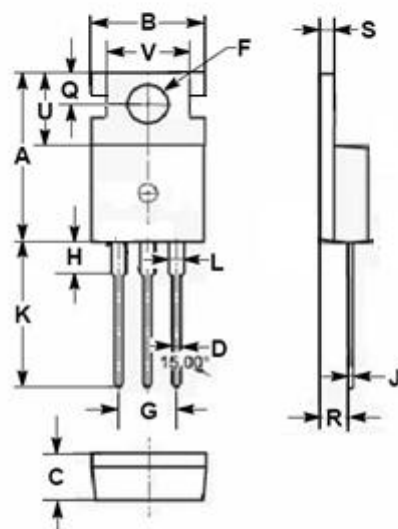


PIN 1. BASE

2. COLLECTOR

3. EMITTER

TO-220C package



DIM	mm	
	MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

**isc Silicon NPN Power Transistor****2SC1913****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 30mA; I <sub>B</sub> = 0	150			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 500mA; I <sub>B</sub> = 30mA			1.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 500mA; I <sub>B</sub> = 30mA			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 120V; I <sub>E</sub> = 0			1	uA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 4V; I <sub>C</sub> = 0			1	uA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 150mA; V <sub>CE</sub> = 10V	65		330	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 500mA; V <sub>CE</sub> = 5V	50			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>E</sub> = 50mA; V <sub>CE</sub> = 10V		120		MHz

**◆ h<sub>FE-1</sub> Classifications**

P	Q	R	S
65-110	90-155	130-220	185-330

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